GRACE STEREO PRODUCTS

Grace

G-707 QUAD-MASTER

STEREO TONE ARM

Manufacturers: SHINAGAWA MUSEN CO., LTD.

Sole Agents: SUIKO DENPA COMPANY, LTD.

NIKKO MITA BUILDING
No.4-26, TAKANAWA 1-CHOME
MINATO-KU TOKYO 108, JAPAN

Developed especially for 4 channel stereo records, the G-707 is an ultra light weight semi-integrated pick-up arm. It embodies the quality of the "Grace" integrated Sigma 709 arm coupled with the versatility of the "Grace" G-840 arm. When used with a 4 channel stereo cartridge, or a high-compliance cartridge, the G-707 gives the superb reproduction available only from an integrated pick-up.

FEATURES:

* The use of a 6 mm. dia. light alloy pipe specially hard finished for good appearance, eliminates unwanted resonances.

* In order not to distort the mid frequencies, because of dead mass, the G-707 is provided with a non-interchangeable acrylic head shell. This is an integral part of the entire arm, however, changing cartridges can still be easily achieved.

* A high precision double gimbal pivot refined after over 10 years of manufacturing experience is used on this arm. The gimbals now use aircraft instrument micro pivot bearings to reduce friction resistance to less than 20 milligrams.

* The balancing of the G-707 arm is done by sliding and turning the weights in steps of 0.1 gram. Also, by use of the slide feature, cartridges varying in total weight between 4.5 grams and 12 grams can be perfectly adjusted.

* A 35 cm. (14") arm length has been chosen for the G-707 arm to enable it to be fitted in standard player units and hi-fi sets.

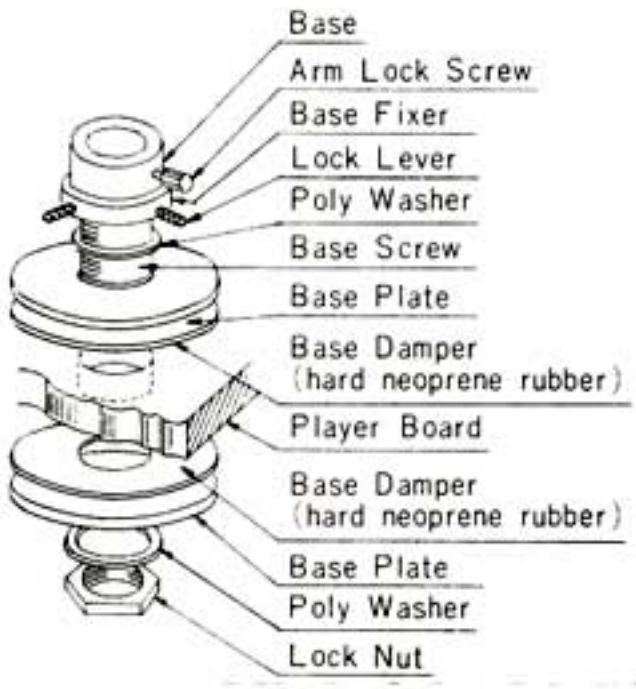
* An arm director, which was formerly supplied as an optional accessory, has been incorporated, resulting in a smooth positive tone arm lowering motion.

* A bias adjuster is also incorporated, and used both the rotating lever and weighted string principle to achieve perfect tracing of the record grooves.

* Since Discrete 4 channel stereo records require a much wider range of frequency response, as high as 50 KHz. — the wiring between cartridge and input jack is a specially developed plastic and metal mesh shielding with low capacitive effect, thus delivering the full frequency range to the amplifier.

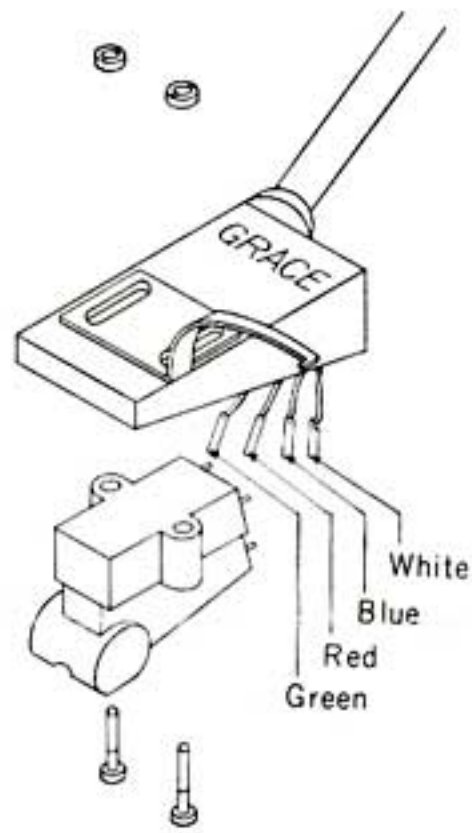
MOUNTING THE G-707 TONE ARM.

1) Use the template supplied to position the arm on the turntable base plate.
2) Drill a 20 to 25 mm. dia. hole for the arm base, so that minor adjustments can be made. (However, if the black and white base plate is not used, this hole must be only 18.5 to 19 mm. dia.)
3) When mounting onto the player case, be careful that the movement of the arm after mounting is not restricted. (When using heavier cartridges, the balance weight may protrude as much as 70 mm. from the end of the arm. Make certain before mounting that this will not impede the free movement of the arm.)
4) After removing the turning base from the tone arm, loosen and remove lock nut, poly washer and base damper, and mount the base as per drawing:



The base fixer with its lock arm should be turned so that there is about 0.5 mm. thread space above the base fixer and the base. Position the base for the best position of the arm lock screw (to give easy access for tightening the tone arm later.) Tighten the lock nut — do not tighten too tight. When adjusting for over-hang, slightly loosen base fixer and the tone arm can be moved easily in any direction for minor adjustments.

5) Mount the clip to hold lead wire underneath the base board, allowing about 100 mm. leeway to pick-up connection.
6) Mount cartridge as per drawing, and allow about 15 mm. overhang. Mount the finger lift and cartridge first, and then make the connection to the leads.



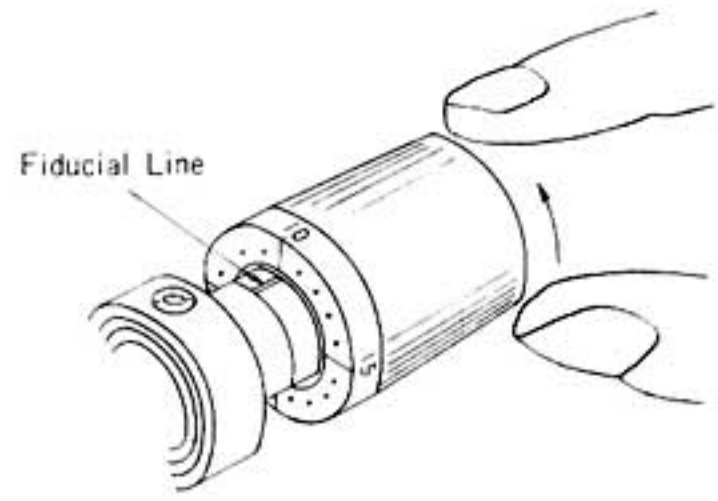
7) After mounting the base onto the player base board, it will be necessary to adjust the arm director and bias adjuster.
Loosen the set screw and raise the unit base of the arm director as high as it rises. Next, place one end of the pre-looped nylon thread on the bias adjuster and the other onto the pin at the rear of the tone arm.

Insert the pin plug for electrical connection into the pick-up arm, and insert the pick-up arm into the mounted base. Tighten the lock screw after positioning the arm on the turntable and making the arm level with the turntable.

Place the arm onto the arm rest previously mounted, and line up the arm director unit base, to be directly under the arm, and tighten. This will also place the bias adjuster in its correct position. The arm director should now be positioned properly and by lifting the lever, the lifter bar should raise the arm so that the cartridge is raised 10 to 15 mm. above the record. Before finally tightening the unit base, make sure that the lifting arm works smoothly and does not touch the tightening screw.

In adjusting for inside force, please understand that the specifications of different records and different cartridges used can vary the inside force required. It is, therefore, impossible to make a single standard correction for these varying factors. However, when the weight is closest to the arm, the stylus pressure is 0.75 gram, thereafter every graduation on the lever represents 0.25 gram. Therefore, if the stylus pressure is set at 1.5 grams, then the bias adjuster should be moved out 3 marks.

First to adjust for zero balance, slightly raise the bias adjuster lever, and turn the tone arm counter balance weight to obtain neutral balance. When this has been determined, turn the scale only on the counter balance, so that the 'O' lines up with the center line marked on the arm shaft. Since the marking is segmented into 0.1 gram steps, by turning the whole counter balance weight, the correct stylus pressure may be set. For heavy cartridges that can not be balanced in this manner, loosen the set screw on the weight shaft, and move the whole balance weight mechanism backwards and re-fix this giving additional counter weight effect.



SPECIFICATIONS

Overall length:	288 mm. (Min.) 313 mm. (Max.)
Distance between axis and stylus:	237 mm.
Arc of Movement:	approx. 80°
Stylus overhang:	15 mm.
Bearing friction:	less than 20 mg.
Stylus pressure adjustment:	0.1 gram calibrations.
Suitable cartridge weight:	4.5 to 12 grams.